

AMENDMENTS TO THE CLAIMS

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims in the application.

Please amend claims 2, 3, 8, 9, 19 and 20, as follows:

1 1. (Previously Presented) A method for performing a call processing operation
2 to manage state information of access nodes in a high-speed wireless data system,
3 comprising the steps of:

4 when an access node coupled to a wireless private network makes a request for a
5 call connection with another access node coupled to the wireless private network,
6 carrying out a call connection between the access nodes, providing a high-speed
7 wireless data service for the access nodes, and carrying out a call connection release
8 after completing the high-speed wireless data service;

9 updating state information of the access nodes according to the call connection
10 and connection release between the access nodes, the state information indicating an
11 idle state or a busy state of the access nodes; and

12 transmitting the state information of the access nodes to a public network in
13 response to a request for the state information of the access nodes by the public
14 network.

1 2. (Currently Amended) A method for performing a call processing operation to
2 manage state information of access nodes in a high-speed wireless data system,
3 comprising the steps of:

4 when an access node coupled to a wireless private network makes a request for a
5 call connection with another access node coupled to the wireless private network,
6 carrying out a call connection between the access nodes [[and]], providing a high-speed
7 wireless data service for the access nodes [[;]] ,and updating state information of the
8 access nodes to busy state information;

9 when the high-speed wireless data service for the access nodes is completed,
10 carrying out a call connection release [[;]] ,and updating the state information of the
11 access nodes to idle state information according to the call connection release; and

12 transmitting the state information of the access nodes to the public network in
13 response to a public network requesting the state information of the access nodes.

1 3. (Currently Amended) A method for performing a call processing operation to
2 manage state information of access nodes in a high-speed wireless data system,
3 comprising the steps of:

4 when an access node coupled to a wireless private network makes a request for a
5 call connection with another access node coupled to the wireless private network,
6 allowing a private access network controller to carry out a call connection between the
7 access nodes [[and]] to provide a high-speed wireless data service for the access nodes

8 [[;]] , allowing the private access network controller to request that state information of
9 the access nodes be updated [[;]] , and allowing a data location register to update the
10 state information of the access nodes to busy state information according to a state
11 information update request;

12 when the high-speed wireless data service for the access nodes is completed,
13 carrying out a call connection release between the access nodes [[and]] , allowing the
14 private access network controller to request that the state information of the access
15 nodes be updated [[;]] , and allowing the data location register to update the state
16 information of the access nodes to idle state information according to another state
17 information update request; and

18 allowing the data location register to transmit the state information of the access
19 nodes to a public network in response to a request for the state information of the
20 access nodes by the public network.

1 4. (Original) The method of claim 3, with the data location register storing the
2 information associated with the access node requesting for the call connection being
3 equal to the information associated with the other access node.

1 5. (Original) The method of claim 4, with the private access network controller
2 and the data location register being configured to being based on an Internet protocol.

1 6. (Original) The method of claim 5, with the private access network controller
2 sending a state information update request message including current state information
3 of the originating access node and the terminating access node to the data location
4 register.

1 7. (Original) The method of claim 5, with the private access network controller
2 sending a request message indicating the state information of the originating access
3 node and the terminating access node to be updated to busy state information and the
4 data location register searching for the subscriber information upon receiving the state
5 information update request and updating the access node state information to busy state
6 information.

1 8. (Currently Amended) A wireless data system, comprising:
2 a first access node receiving a first network service;
3 a second access node receiving a second network service;
4 a first private access network transceiver system setting up a session when the
5 first access node moves within the wireless service area of the first private access
6 network transceiver;
7 a second private access network transceiver system setting up a session when the
8 second access node moves within the wireless service area of the second private access
9 network transceiver;

10 a private access network controller carrying out a call connection between the
11 access nodes [[and]] to provide data service for the first and second access nodes when
12 the first access node coupled to the first network service makes a request for a call
13 connection with the second access node coupled to the first second network service, and
14 ~~the private access network controller~~ requesting state information of the first and
15 second access nodes to be updated, with the state information indicating an idle state or
16 a busy state of the access nodes; and

17 a data location register transmitting at least one of the state information of the
18 first access nodes and the state information of the second access node to a public
19 network in response to a request for the state information of the access nodes by the
20 public network.

1 9. (Currently Amended) The system of claim 8, further comprising [[a]] the data
2 location register updating the state information of the access nodes to busy state
3 information according to a state information update request.

1 10. (Original) The system of claim 9, with the private access network controller
2 requesting that the state information of the access nodes be updated and carrying out a
3 call connection release between the access nodes when the data service for the access
4 nodes is completed.

1 11. (Original) The system of claim 10, with the data location register updating
2 the state information of the access nodes to idle state information according to another
3 state information update request.

1 12. (Original) The system of claim 11, with the first network service being a
2 wireless private network.

1 13. (Original) The system of claim 12, with the second network service being a
2 public land mobile network.

1 14. (Previously Presented) The system of claim 12, with the second network
2 service being the public network.

1 15. (Original) The system of claim 13, with the data location register storing the
2 information associated with the first access node of the wireless private network equal
3 to the information associated with the second access node of the public land mobile
4 network.

1 16. (Original) The system of claim 15, with the private access network
2 controller and the data location register being configured to being based on an Internet
3 protocol.

1 17. (Original) The system of claim 16, with the private access network
2 controller sending a request message indicating the state information of the originating
3 access node and the terminating access node to be updated to busy state information and
4 the data location register searching for the subscriber information upon receiving the
5 state information update request and updating the access node state information to busy
6 state information.

1 18. (Previously Presented) A computer-readable medium having computer-
2 executable instructions for performing a method for performing a call processing
3 operation to manage state information of access nodes in a high-speed wireless data
4 system, comprising:

5 when an access node coupled to a wireless private network makes a request for a
6 call connection with another access node coupled to the wireless private network,
7 carrying out a call connection between the access nodes, providing a high-speed
8 wireless data service for the access nodes, and carrying out a call connection release
9 after completing the high-speed wireless data service;

10 updating state information of the access nodes according to the call connection
11 and connection release between the access nodes, the state information indicating an
12 idle state or a busy state of the access nodes; and

transmitting the state information of the access nodes to a public network in response to a request for the state information of the access nodes by the public network.

1 19. (Currently Amended) A computer-readable medium having computer-
2 executable instructions for performing a method for performing a call processing
3 operation to manage state information of access nodes in a high-speed wireless data
4 system, comprising:

5 when an access node coupled to a wireless private network makes a request for a
6 call connection with another access node coupled to the wireless private network,
7 carrying out a call connection between the access nodes ~~and providing to provide~~ a
8 high-speed wireless data service for the access nodes [[;]] , and updating state
9 information of the access nodes to busy state information;

10 when the high-speed wireless data service for the access nodes is completed,
11 carrying out a call connection release [[;]] , and updating the state information of the
12 access nodes to idle state information according to the call connection release; and

transmitting the state information of the access nodes to the public network in response to a public network requesting the state information of the access nodes.

1 20. (Currently Amended) A computer-readable medium having stored thereon a
2 data structure for performing a call processing operation to manage state information of
3 access nodes in a high-speed wireless data system, comprising:

4 a first field containing data representing when an access node coupled to a
5 wireless private network makes a request for a call connection with another access node
6 coupled to the wireless private network, allowing a private access network controller to
7 carry out a call connection between the access nodes [[and]] to provide a high-speed
8 wireless data service for the access nodes [[;]]

9 ~~— a second field containing data representing , allowing the private access network~~
10 controller to request that state information of the access nodes be updated [[;]]

11 ~~— a third field containing data representing , and~~ allowing a data location register
12 to update the state information of the access nodes to busy state information according
13 to [[a]] the state information update request from the private access network controller;

14 a fourth second field containing data representing when the high-speed wireless
15 data service for the access nodes is completed, carrying out a call connection release
16 between the access nodes [[and]] , allowing the private access network controller to
17 request that the state information of the access nodes be updated;

18 ~~— a fifth field containing data representing , and~~ allowing the data location register
19 to update the state information of the access nodes to idle state information according to
20 ~~another~~ the state information update request from the private access network controller;

21 and

22 a [[sixth]] third field containing data representing allowing the data location
23 register to transmit the state information of the access nodes to a public network in
24 response to a request for the state information of the access nodes by the public
25 network.

1 21. (Previously Presented) The method of claim 1, with said updating state
2 information of the access nodes accommodating a public network to recognize state
3 information of the private network subscriber located in a private and public cell area
4 by transmitting terminal state information from the private network to the public
5 network in a mobile communication system interworked with the public and private
6 networks.

1 22. (Previously Presented) The method of claim 2, further comprised of said
2 updating state information of the access nodes accommodating the public network to
3 recognize state information of a private network subscriber located in a private and
4 public cell area by transmitting terminal state information from the private network to
5 the public network in a mobile communication system interworked with the public and
6 private networks.

1 23. (Previously Presented) The computer-readable medium having computer-
2 executable instructions for performing a method for performing a call processing

3 operation to manage state information of access nodes in a high-speed wireless data
4 system of claim 18, with said updating state information of the access nodes
5 accommodating the public network to recognize state information of a private network
6 subscriber located in a private and public cell area by transmitting terminal state
7 information from the private network to the public network in a mobile communication
8 system interworked with the public and private networks.

1 24. (Previously Presented) The computer-readable medium having computer-
2 executable instructions for performing a method for performing a call processing
3 operation to manage state information of access nodes in a high-speed wireless data
4 system of claim 19, with said updating state information of the access nodes
5 accommodating the public network to recognize state information of a private network
6 subscriber located in a private and public cell area by transmitting terminal state
7 information from the private network to the public network in a mobile communication
8 system interworked with the public and private networks.